Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in this application.

LISTING OF CLAIMS:

1. (cancelled)

2. (cancelled)

3. (cancelled)

4. (cancelled)

5. (cancelled)

6. (cancelled)

7. (cancelled)

8. (cancelled)

9. (cancelled)

10. (currently amended) A method for reducing the polydispersivity of a high molecular weight polyetherimide resin comprising:

forming a polyetherimide solution using a solvent selected from the group consisting of o-dichlorobenzene and anisole;

contacting the polyetherimide solution with an anti-solvent selected from the group consisting of toluene, ketones, acetone, tetrahydrofuran, xylenes, and dioxane wherein the

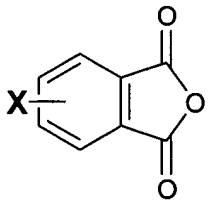
anti-solvent is capable of dissolving low molecular weight species but not the high molecular weight polyetherimide;

allowing phase separation to occur to obtain a light phase and a heavy phase; and

recovering the desired polyetherimide from the heavy phase, wherein the resulting polyetherimide possessed a polydispersivity ranging from about 1.5 to about 2.5.

11. (original) The method of claim 10 wherein the step of forming a polyetherimide resin further comprises forming a polyetherimide by reacting a bis-halophthalimide with at least one alkali metal salt of a dihydroxy-substituted aromatic compound in the presence of a phase transfer catalyst.

12. (original) The method of claim 11 wherein the step of forming the polyetherimide comprises reacting a bis-halophthalimide produced by reacting a diamino compound with an anhydride having the following formula



(II)

wherein X is selected from the group consisting of nitro, nitroso, tosyloxy, halogen and mixtures thereof, with at least one alkali metal salt of a dihydroxy-substituted aromatic compound in the presence of a phase transfer catalyst.

13. (currently amended) The method of claim 11 wherein the step of forming the polyetherimide comprises reacting a bis-halophthalimide ~~halophthalimide~~ produced by reacting a diamino compound with an anhydride selected from the group consisting of 3-chlorophthalic anhydride, 4-chlorophthalic anhydride, dichloro phthalic anhydride, phthalic anhydride and mixtures thereof, with at least one alkali metal salt of a dihydroxy-substituted aromatic compound in the presence of a phase transfer catalyst.

14. (currently amended) The method of claim 13 ~~11~~ wherein the step of forming the polyetherimide comprises reacting the anhydride with a diamino compound selected from the group consisting of ethylenediamine, propylenediamine, trimethylenediamine, diethylenetriamine, triethylenetetramine, heptamethylenediamine, octamethylenediamine, 1,12-dodecanediamine, 1,18-octadecanediamine, 3-methylheptamethylenediamine, 4,4-dimethylheptamethylenediamine, 4-methylnonamethylenediamine, 2,5-dimethylhexamethylenediamine, 2,2-dimethylpropylenediamine, N-methyl-bis(3-aminopropyl)amine, 3-methoxyhexamethylenediamine, 1,2-bis(3-aminopropoxy)ethane, bis(3-aminopropyl) sulfide, 1,4-cyclohexanediamine, bis-(4-aminocyclohexyl)methane, m-phenylenediamine, p-phenylenediamine, 2,4-diaminotoluene, 2,6-diaminotoluene, m-xylylenediamine, p-xylylenediamine, 2-methyl-4,6-diethyl-1,3-phenylenediamine, 5-methyl-4,6-diethyl-1,3-phenylene-diamine, benzidine, 3,3'-dimethylbenzidine, 3,3'-dimethoxybenzidine, 1,5-diaminonaphthalene, bis(4-aminophenyl)methane, bis(2-chloro-4-amino-3,5-diethylphenyl)methane, bis(4-aminophenyl)propane, 2,4-bis(β-amino-t-butyl)toluene, bis(p-β-methyl-o-aminopentyl)benzene, 1,3-diamino-4-isopropylbenzene, bis(4-aminophenyl) sulfone, bis(4-aminophenyl) ether, 1,3-bis(3-aminopropyl)tetramethyldisiloxane and mixtures thereof.

15. (original) The method of claim 12 wherein the step of forming the polyetherimide comprises reacting a bis-halophthalimide produced by reacting an anhydride with a diamino compound selected from the group consisting of m-phenylenediamine and p-phenylenediamine, with at least one alkali metal salt of a dihydroxy-substituted aromatic compound in the presence of a phase transfer catalyst.

16. (original) The method of claim 11 wherein the step of forming the polyetherimide resin further comprises forming a polyetherimide by reacting a halophthalimide with bisphenol A disodium salt.

17. (original) The method of claim 11 wherein the step of forming the polyetherimide resin further comprises reacting a halophthalimide with at least one alkali metal salt of a dihydroxy-substituted aromatic compound in the presence of a phase transfer catalyst

selected from the group consisting of hexaalkylguanidinium alkane salts and α,ω-bis(pentaalkylguanidinium)alkane salts.

18. (cancelled)

19. (original) The method of claim 10 wherein the step of forming the polyetherimide solution further comprises heating the polyetherimide solution to a temperature ranging from about 50° C. to about 180 ° C.

20. (original) The method of claim 10 wherein the step of forming the polyetherimide solution further comprises heating the polyetherimide solution to a temperature ranging from about 80° C. to about 110°.

21. (cancelled)

22. (original) The method of claim 10 wherein the step of contacting the polyetherimide solution with the anti-solvent comprises adding anti-solvent in an amount ranging from about 1/10 to about 1/2 by weight of the solvent in the polyetherimide solution.

23. (original) The method of claim 10 wherein the step of contacting the polyetherimide solution with the anti-solvent comprises adding anti-solvent in an amount of about 1/3 by weight of the solvent in the polyetherimide solution.

24. (original) The method of claim 10 wherein the step of contacting the polyetherimide solution with the anti-solvent further comprises heating to a temperature ranging from about 100° C. to about 180° C.

25. (original) The method of claim 10 wherein the step of contacting the polyetherimide solution with the anti-solvent further comprises heating to a temperature ranging from about 135° C. to about 150° C.

26. (original) A polyetherimide resin produced in accordance with the method of claim 10.

27. (cancelled)

28. (currently amended) A ~~The~~ method ~~of claim 27 wherein the step of~~ for reducing the polydispersivity of a high molecular weight polyetherimide resin comprising:

forming a polyetherimide solution ~~comprises~~ using a solvent selected from the group consisting of o-dichlorobenzene and anisole and by reacting a diamino compound selected from the group consisting of m-phenylenediamine and p-phenylenediamine with an anhydride selected from the group consisting of 3-chlorophthalic anhydride, 4-chlorophthalic anhydride, dichloro phthalic anhydride, phthalic anhydride and mixtures thereof to produce a halophthalimide, and then reacting the halophthalimide with bisphenol A disodium salt in the presence of a phase transfer catalyst selected from the group consisting of hexaalkylguanidinium alkane salts or a α,ω-bis(pentaalkylguanidinium)alkane salts;

contacting the polyetherimide solution with an anti-solvent capable of dissolving low molecular weight species but not the high molecular weight polyetherimide selected from the group consisting of toluene, ketones, acetone, tetrahydrofuran, xylenes, and dioxane;

allowing phase separation to occur to obtain a light phase and a heavy phase; and

recovering the desired polyetherimide from the heavy phase,

wherein the resulting polyetherimide possessed a polydispersivity ranging from about 1.5 to about 2.5.

29. (currently amended) The method of claim 28 ~~27~~ wherein the step of forming the polyetherimide solution further comprises heating the polyetherimide solution to a temperature ranging from about 50° C. to about 180 ° C.

30. (currently amended) The method of claim 28 ~~27~~ wherein the step of forming the polyetherimide solution further comprises heating the polyetherimide solution to a temperature ranging from about 80° C. to about 110°.

31. (currently amended) The method of claim 28 ~~27~~ wherein the step of contacting the polyetherimide solution with the anti-solvent comprises adding anti-solvent in an amount ranging from about 1/10 to about 1/2 by weight of the solvent in the polyetherimide solution.

32. (currently amended) The method of claim 28 ~~27~~ wherein the step of contacting the polyetherimide solution with the anti-solvent comprises adding anti-solvent in an amount of about 1/3 by weight of the solvent in the polyetherimide solution.

33. (currently amended) The method of claim 28 ~~27~~ wherein the step of contacting the polyetherimide solution with the anti-solvent further comprises heating to a temperature ranging from about 100° C. to about 180° C.

34. (currently amended) The method of claim 28 ~~27~~ wherein the step of contacting the polyetherimide solution with the anti-solvent further comprises heating to a temperature ranging from about 135° C. to about 150° C.

35. (currently amended) A polyetherimide resin produced in accordance with the method of claim 28 ~~27~~.